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# Technical Fact Sheet

## INTEL DUAL-CORE PROCESSORS POWER INTEL® VIIV™ TECHNOLOGY PLATFORMS

**Intel® Pentium® D, Intel® Pentium® Processor Extreme Edition and Intel® Core™ Duo Processors Team with the Intel® 945/955/975 Express Chipset Families for Digital Home**

Intel® Viiv™ technology is Intel's new brand for the digital home, designed to enhance and help manage how consumers enjoy, manage and share digital entertainment in the home. The new branded platform for the digital home is comprised of a suite of Intel technologies that deliver the performance for high-definition entertainment with the latest, high-performance Intel dual core processors and chipsets that deliver support for up to 7.1 surround sound, high-definition video, and enhanced protection for personal content and memories stored on the PC.

Product	Technical Details
Intel® Pentium® D Processor (previously codenamed Presler)	<ul style="list-style-type: none"><li>• Frequency: up to 3.40 GHz</li><li>• Front-side bus: 800 MHz</li><li>• Cache: 2 x 2MB L2 Cache</li><li>• Intel® Extended Memory 64 Technology<sup>1</sup></li><li>• Security-enhancing features: Execute Disable Bit</li><li>• Enhanced Intel SpeedStep® Technology<sup>2</sup></li><li>• Intel® Virtualization Technology</li><li>• Die Size: 162mm<sup>2</sup></li><li>• Transistors: 376 M</li><li>• Manufacturing process technology: 65nm process technology</li></ul>
Intel® Pentium® Processor Extreme Edition	<ul style="list-style-type: none"><li>• Frequency: 3.46 GHz</li><li>• Front-side bus: 1066 MHz</li><li>• Cache: 2 x 2MB L2 Cache</li><li>• Intel® Extended Memory 64 Technology<sup>1</sup></li><li>• Security-enhancing features: Execute Disable Bit</li><li>• Intel® Virtualization Technology</li><li>• Die Size: 162mm<sup>2</sup></li><li>• Transistors: 376M</li><li>• Manufacturing process technology: 65nm process technology</li></ul>

Intel® Core™ Duo (previously codenamed Yonah)	<ul style="list-style-type: none"> <li>• Frequency: 2.16 GHz</li> <li>• Front-side bus: 667 MHz</li> <li>• Cache: 2MB L2 Cache</li> <li>• Security-enhancing features: Execute Disable Bit</li> <li>• Enhanced Intel SpeedStep® Technology</li> <li>• Intel® Smart Cache</li> <li>• Intel® Dynamic Power Coordination</li> <li>• Intel® Digital Media Boost</li> <li>• Die Size: 90.3mm<sup>2</sup></li> <li>• Transistors: 151.6M</li> <li>• Manufacturing process technology: 65nm process technology</li> </ul>
Intel® 945 Express Chipset Family	<ul style="list-style-type: none"> <li>• Front-side bus: 1066/800/533 MHz; the Intel 945GM Express chipset and Intel 945PM Express chipset models include 667/533/400 MHz front-side bus</li> <li>• Memory: <ul style="list-style-type: none"> <li>◦ Dual channel DDR2-667/533/400 support - 4GB maximum total memory support</li> </ul> </li> <li>• Graphics: <ul style="list-style-type: none"> <li>◦ External Graphics: Single X16 PCI Express* graphics card support</li> <li>◦ Internal Graphics: Intel® Graphics Media Accelerator 950</li> </ul> </li> <li>• Audio support: <ul style="list-style-type: none"> <li>◦ Intel® High-Definition Audio for support for 7.1 surround sound</li> </ul> </li> <li>• Serial ATA: <ul style="list-style-type: none"> <li>◦ Four Serial ATA 3 Gb/s ports:</li> </ul> </li> <li>• Intel® Matrix Storage Technology <ul style="list-style-type: none"> <li>◦ RAID 0, 1, 5, 10, which boosts the system's application and storage performance while helping to protect valuable content</li> <li>◦ Advanced host controller interface (AHCI) support</li> </ul> </li> </ul>
Intel® 955X Express Chipset	<ul style="list-style-type: none"> <li>• Front-side bus: 1066 (single-core) /800 MHz; support for 4-threaded computing through HT Technology</li> <li>• Intel® Memory Pipeline Technology</li> <li>• Memory: <ul style="list-style-type: none"> <li>◦ Dual channel DDR2-667/533 support - 4GB maximum total memory support with ECC parity support</li> </ul> </li> <li>• External Graphics: <ul style="list-style-type: none"> <li>◦ Single X16 PCI Express* graphics card support</li> </ul> </li> <li>• Audio support: <ul style="list-style-type: none"> <li>◦ Intel® High-Definition Audio for support for 7.1 surround sound</li> </ul> </li> <li>• Serial ATA: <ul style="list-style-type: none"> <li>◦ Four Serial ATA 3 Gb/s ports</li> </ul> </li> <li>• Intel® Matrix Storage Technology: <ul style="list-style-type: none"> <li>◦ RAID 0, 1, 5, 10, which boosts the system's application and storage performance while helping to protect valuable content</li> </ul> </li> <li>• Advanced host controller interface (AHCI) support</li> </ul>
Intel® 975X Express Chipset	<ul style="list-style-type: none"> <li>• Front-side bus: 1066 (single and dual-core) /800 MHz; support for 4-threaded computing through HT Technology</li> <li>• Intel® Memory Pipeline Technology</li> <li>• Memory: <ul style="list-style-type: none"> <li>◦ Dual channel DDR2-667/533 support 4GB maximum total memory support with ECC parity support</li> </ul> </li> <li>• External Graphics</li> </ul>

	<ul style="list-style-type: none"><li>○ Single X16 or dual X8 lanes for PCI Express* graphics card support</li><li>• Audio support:<ul style="list-style-type: none"><li>○ Intel® High-Definition Audio for support for 7.1 surround sound</li></ul></li><li>• Serial ATA<ul style="list-style-type: none"><li>○ Four Serial ATA 3 Gb/s ports</li></ul></li><li>• Intel® Matrix Storage Technology<ul style="list-style-type: none"><li>○ RAID 0, 1, 5, 10, which boosts the system's application and storage performance while helping to protect valuable content</li></ul></li><li>• Advanced host controller interface (AHCI) support</li></ul>
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<sup>1</sup>Intel® EM64T requires a computer system with a processor, chipset, BIOS, operating system, device drivers and applications enabled for Intel EM64T. Processor will not operate (including 32-bit operation) without an Intel EM64T-enabled BIOS. Performance will vary depending on your hardware and software configurations. See [www.intel.com/info/em64t](http://www.intel.com/info/em64t) for more information including details on which processors support Intel EM64T or consult with your system vendor for more information.

<sup>2</sup>Enhanced Intel SpeedStep® Technology for specific units of this processor will be available Q2/06. See the Processor Spec Finder at <http://processorfinder.intel.com> or contact your Intel representative for more information.